

KRYLOV, Vladimir Ivanovich; OZOLIN, A.K., inzhener, redaktor; VERINA, G.P.,  
tekhnicheskii redaktor

[Automatic locomotive brakes] Avtotormosa lokomotivov. 3-e izd,  
ispr. i dop. Moskva, Gos. transp. shkol-dor. izd-vo, 1954. 383 p.  
(Locomotives--Brakes) (MIRA 8:3)

KLYKOV, Yevgeniy Vladimirovich; KRYLOV, Vladimir Ivanovich; VINOGRADOV,  
Vasiliy Mikhaylovich; BRAYLOVSKIY, N.O., inzhener, redaktor;  
YUDZON, D.M., tekhnicheskii redaktor

[MTZ-135 Matrosov system automotive brakes] Avtomaticheskii  
tormoz sistemy matrosova MTZ-135. Moskva, Gos. transp. shel.-dor.  
izd-vo, 1956. 146 p. (MLRA 9:9)  
(Railroads--Brakes)

KRYLOV, Vladimir Ivanovich; OZOLIN, A.K., inzhener, redaktor; BERINA, G.P.,  
tekhnicheskiiy redaktor

[Automatic brakes of locomotives] Avtostormoza lokomotivov. Izd. 4-os.  
ispr. 1 dop. Moskva, Gos. transp.shel-dor. izd-vo, 1956. 378 p.  
(Brakes) (Locomotives) (MLRA 9:12)

*Krylov, Vladimir*  
~~KRYLOV, Vladimir Ivanovich; PEROV, Aleksandr Nikitich; OZOLIN, Aleksandr~~  
~~Karlovich; BARANTSEV, Yu.S., red.; VERINA, G.P., tekhn.red.~~

[Handbook on brakes] Spravochnik po tormozam. Moskva, Gos.  
transp.zhel-dor. izd-vo, 1957. 595 p. (MIRA 11:2)  
(Railroads--Brakes)

PERO', A.H., inzh. ~~BYKOV, V.I.~~ inzh.

270-002 air-fractionating apparatus. Elec. 1 topl. tiaga 2 no.10:  
7-11 0 '58. (MIRA 11:11)

(Air brakes)

GRINIO, Vyacheslav Adol'fovich; KRYLOV, Vladimir Ivanovich; OZOLIN,  
Aleksandr Karlovich; KLYKOV, Ye.V., kand.tekhn.nauk, red.;  
VERINA, G.P., tekhn.red.

[Faucets of a railroad engineer; provisory numbers 222 and  
254] Krany mashinista; uslovnye nomera 222 i 254. Moskva,  
Gos.transp.shel-dor.isd-vo, 1959. 44 p. (MIRA 12:12)  
(Railroads--Brakes)

OZOLIN, A.K., insh.; KRYLOV, V.I., insh.

Air-fractionating apparatus No. 292 used for passenger trains.  
Elek. i tepl. tiaga 3 no.1:23-26 Ja '59. (MIRA 12:2)  
(Railroads--Brakes)

KRYLOV, Vladimir Ivanovich; OZOLIN, Aleksandr Karlovich; BRAYLOVSKIY,  
N.G., insh., red.; KHITROVA, N.A., tekhn.red.

[New air distributor for passenger trains] Novyi vozdukhorespre-  
delitel' dlia passazhirskikh poezdov. Moskva, Vses.izdatel'sko-  
poligr.ob"edinenie M-va putei soobshchenia, 1960. 46 p.

(MIRA 13:6)

(Railroads--Brakes)



KRYLOV, Vladimir Ivanovich; OZOLIN, A.K., inzh., red.; BOEROVA, Ye.N.,  
tekhn.red.

[Locomotive brakes] Tormosa lokomotivov. Moskva, Vses.izda-  
tel'sko-poligr.ob"edinenie M-vs putel soobshchenia, 1960. 299 p.  
(MIRA 14:1)

(Railroads--Brakes)

RAKOV, Vitaliy Aleksandrovich; GOKHSHEYN, B.Ya., kand. tekhn. nauk, retsenzent; KRYLOV, V.I., inzh., retsenzent; LOZANOVSKIY, A.L., inzh., retsenzent; NAKHODKIN, M.D., kand. tekhn. nauk, retsenzent; NEVEZHIN, P.P., inzh., retsenzent; TARASOV, G.P., inzh., retsenzent; TIKHMENEV, B.N., doktor tekhn. nauk, retsenzent; SAZONOV, I.A., inzh., retsenzent; SUKHODOL'SKIY, P.I., inzh., retsenzent; KRYLOV, S.K., inzh. red.; DANILOV, L.N., red. izd-va; SOKOLOVA, T.F., tekhn. red.

[A.C. electric locomotives] Elektrovozy peremennogo toka. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 531 p.  
(MIRA 14:10)

(Electric locomotives)

KRYLOV, V.I.; OZOLIN, A.K.

Discussion of Boiko and Senderov's article "Is there a need for emergency brake accelerators on freight trains." Elek. i tepl. tiaga 5 no. 11:30-31 N '61. (MIRA 14:11)

1. Nachal'nik tormoznoy laboratorii Moskovskogo tormoznogo zavoda (for Krylov). 2. Zamestitel' glavnogo konstruktora Moskovskogo tormoznogo zavoda (for Ozolin).  
(Railroads-- Brakes)

ORINIO, Vyacheslav Adol'fovich; KRYLOV, Vladimir Ivanovich; OZOLIN,  
Aleksandr Karlovich; INOZEMTSEV, V.G., kand. tekhn.nauk,  
red.; VOROTNIKOVA, L.P., tekhn. red.

[Engineer's valves] Krany mashinista. Izd.2., dop. Moskva,  
Transzheldorizdat, 1962. 74 p. (MIRA 15:11)  
(Locomotives--Valve-gears)

ZAV'YALOV, G.N.; KRYLOV, V.I.; OZOLIN, A.K.; RUDKOV, G.V.; KHATSKHELVICE, M.N.,  
inzh.

Replies to the inquiries of our readers. Elek.i tepl.tiaga 7  
no.1243-44 Ja '63. (MIRA 16:2)

1. Glavnyy tekhnolog po avtotormosam Glavnogo upravleniya lokomotivnogo khozyaystva Ministerstva putey soobshcheniya (for Zav'yalov).
2. Nachal'nik tormoznoy laboratorii Moskovskogo tormoznogo zavoda (for Krylov).
3. Zamestitel' nachal'nika spetsial'nogo konstruktorskogo byuro Moskovskogo tormoznogo zavoda (for Ozolin).
4. Zamestitel' nachal'nika proyektno-tekhnologicheskogo otdela po remontu i ekspluatatsii teplovozov pri zavode im. Il'icha (for Rudkov).

(Railroads--Signaling)

(Diesel locomotives)

RAKOV, Vitaliy Aleksandrovich; KALININ, S.S., inzh., retsenzent;  
SUSLOV, B.V., inzh., retsenzent; NAKHODKIN, M.D., kand.  
tekhn. nauk, retsenzent; FAMINSKIY, G.V., kand.tekhn.  
nauk, retsenzent; ROGOVA, Ye.N., inzh., retsenzent;  
KRYLOV, V.I., inzh., retsenzent; NOVIKOV, V.N., inzh.,  
retsenzent; GORELIK, I.A., inzh., red.; BOBROVA, Ye.N.,  
tekhn. red.

[Series ChS2 electric locomotive for passenger trains]  
Passazhirskii elektrovoz serii ChS2. Moskva, Transzhel-  
dorizdat, 1963. 359 p. (MIRA 17:1)

KRYLOV, Vladimir Ivanovich; TOLKACHEV, Vasilii Prokof'yevich;  
SAZONOV, A.G., red.

[Automatic brakes] Avtomaticheskie tormoza. Moskva, Izd-  
vo "Transport," 1964. 286 p. (MIRA 17:8)

KRYLOV, V.I.; ADLICH, T.M.

Convergence of quadrature processes containing the values of  
derivatives of integrable functions. Dokl. AN SSSR 7 no.11:721-723  
N 163. (MIRA 17:9)

1. Institut matematiki i vychislitel'noy tekhniki AN SSSR.



KRYLOV, V.I., doktor fiziko-matem. nauk

Reviews and bibliography. Dif. urav. 1 no.8:1117-1124 Ag '65.  
(MIRA 18:9)

L 1619-66

ACCESSION NR: AP5017764

UR/0216/65/000/004/0542/0549  
575.24

AUTHOR: Alikhanyan, S. I.; Grinberg, K. N.; Krylov, V. N.;  
Maysuryan, A. N.; Oganessian, M. G. 20  
B

TITLE: Temperature-sensitive (ts) mutants of bacteriophage T4B

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 4, 1965,  
542-549

TOPIC TAGS: bacterial genetics, biochemistry, temperature  
characteristic

ABSTRACT: A new method of inducing temperature-sensitive bacteriophage T4B mutants with disturbed synthesis of various enzymes, particularly those required for DNA synthesis, is described. E. coli B strains were infected with bacteriophage T4B and cultivated in a broth using 2,6-diaminopurine, hydroxylamine, ultraviolet light, and 5-bromouracil as mutagenic agents. Mutants were selected from a total of 298 colonies by methods of absolute selection, minute-phenotype, and antiphage serum. In contrast to phage T4B, the mutants behave differently at 27 and 42 C. Hydroxylamine with

Card 1/2

L 1619-66

ACCESSION NR: AP5017764

antiphage serum yielded a high percentage (15-20%) of ts-mutants. Preliminary classification of the ts-mutants by a complementation test divided them into 50 groups. Some groups had 4-7 mutants, others 2, and the majority one. A physiological study of the ts-mutants showed that their thermal sensitivity is related to the thermolability of the intracellular developmental stages. Differences were found in mutant inactivation kinetics when applying the one step growth cycle according to Adams at 42 C. On the basis of these differences the mutants may be divided into 4 phenotypes. The fact that these mutants were preliminarily distributed over 50 groups indicates that many genes are affected by mutations. The tests confirmed the assumption that conditionally lethal mutations may be induced from the bacteriophage T4B. Orig. art. has: 6 tables and 2 figures.

ASSOCIATION: Institut atomnoy energii im. I. V. Kurchatova  
(Institute of Atomic Energy)

SUBMITTED: 08Jun64

ENCL: 00

SUB CODE: 18

NR REF SOV: 002

OTHER: 006

Card 2/2. JD

KRYLOV, V.K., inzh (Rostov-na-Donu)

Designing frames using the method of finite coefficients of  
distribution. Issl. po teor. sooruzh. no.8:351-382 '59.

(MIRA 12:12)

(Structural frames)

KRYLOV, V.K., inzh. (Rostov-na-Donu)

Designing elastic rods using the approximation method. Issl. po  
teor. sooruzh. no.8:447-460 '59. (MIRA 12:12)  
(Elastic rods and wires)

KRYLOV, V.K. (Rostov-na-Donu)

Design of frames with a large number of joints. Stroi.mekh.1 rasch.  
soor. 3 no.2:22-28 '61. (MIRA 14:5)

(Structures, Theory of)

AUTHOR: Zuyev, M.A., Engineer      SOV/100-98-5-11/15  
Krylov, V.M., Engineer.

TITLE: Universal Hand-operated Tackle RUL-1,5. (Ruchnaya  
universal'naya lebedka RUL-1,5).

PERIODICAL: Mekhanizatsiya Stroitel'stva, 1958, Nr 5, pp 30-31.

ABSTRACT: The Central Experimental Factory designed and tested  
this universal tackle RUL-1,5, manipulated by a hand-  
lever and based on the principle of a continuous chain.  
In working, this tackle could be in horizontal, vertical  
or inclined positions. Technical data is given and the  
mechanism is described and illustrated in Figure 1. The  
handle can be of two lengths, one 800mm and the other  
1,200mm long. This tackle can be used for the lifting  
of various loads, in workshops, stores, during assembly  
and in forestry. There are three figures.

1. Hoists--Design

Card 1/1

KRYLOV, V. M., Cand Agr Sci -- (diss) "Raising of calves  
under different levels of milk nutrition." Pushkin, 1957.  
17 pp (Min Agr USSR, Len Agr Inst), 100 copies (KL, 1-58, 120)

- 77 -



USSR / Diseases of Farm Animals. Diseases Caused by Protozoa. R

Abstr Jour : Ref Zhur - Biologiya, No 2, 1959, No. 7477

Author : Krylov, V. M.

Inst : Scientific Research Institute of Animal Husbandry  
and Veterinary Science, Tadzhik SSR

Title : The Spreading of Coccidia in Sheep of the Tadzhik  
SSR

Orig Pub : Tr. N.-1. in-ta zhivotnovodstva i veterinarii.  
TadzhSSR, 1957, 1, 187-192

Abstract : No abstract given

Card 1/1

KRYLOV, Vladimir Mikhaylovich, kand.sel'skokhoz.nauk; BOLOGOV, G.N.,  
red.; BARANOVA, L.G., tekhn.red.

[Raising calves] Vyrashchivanie teliat. Moskva, Gos.isd-vo  
sel'khoz.lit-ry, 1959. 99 p. (MIRA 14:1)  
(Calves)

DMITROCHENKO, Aleksandr Petrovich, doktor sel'khoz. nauk; NAUMOV, Petr Andreyevich, doktor sel'khoz. nauk; KRYLOV, Vladimir Mikhaylovich, kand. sel'khoz. nauk; PARKHOMENKO, V.S., red.; PRESNOVA, V.A., tekhn. red.

[Feeding suckling pigs] Podkormka porosiat pod matkami.  
Leningrad, Lenizdat, 1963. 20 p. (MIRA-16:6)  
(Swine--Feeding and feeds)

... ..

... .. testing

... .. A. A. Certificate presents a test ... .. for ... .. impact

... .. a platform for ... .. an investigated object, a cable with a suspension system,  
a cut-off mechanism, a braking mechanism, shock absorbers, and instruments for  
measuring the platform drop rate. To increase the safety of the experiment and  
to exclude the effect of the prescribed height on the free fall of the platform,

... .. a contactless ... ..



USSR/Medicine - Epidemiology,  
Carriers of Infectious Diseases

Oct 51

"The Fight Against Rodents," V. Krylov

"Mauka i Zhizn'" Vol XVIII, No 10, p 40

Peschanka poludennaya and peschanka grebenshchikovaya /Rodents of the subfamily Gebrillinae/ represent a danger in the Astrakhan' steppes because they may transmit dangerous infectious diseases N. N. Tropin, Zoologist of the Astrakhan' Station, suggested that poisoned bait be spread from planes in order to exterminate these rodents. Hundreds of thousands of hectares of steppe were treated in this manner with

213T93

the results that 70-100% of the rodents died. Tropin and his collaborators wrote a scientific treatise on the subject. They were rewarded with a Stalin prize in 1951.

213T93

KRYLOV, V

USSR/Medicine - Immunology

Jul/Aug 52

"Role of the Cortex in Immune Reactions of the Organism," A. O. Dolin, V. N. Krylov, Mil Med Acad  
Imeni S. M. Kirov and Chair of Physiol and Pathol of  
Higher Nervous Activity, Cen Inst for Advanced Tng of  
Physicians

"Zhur Vyssh Nerv Deyat" Vol 2, No 4, pp 547-560

Results of expts, particularly when dynamic stereotypes are established, offer sufficient ground to think that in immune reactions, as in defensive reactions of an organism, cortical dependence is extremely

234744

intensive and firm. Exptl data obtained by inducing immunological and toxic reactions with the aid of conditional irritants furnishes the basis for confirmation that the cortical component is necessarily a part of the over-all phenomena which form the immunological reaction, strengthening or weakening it depending on intercentral relationships that are formed. All this attests to the significance and pervasiveness of expts which were directed toward the study of the defensive, protective role of the nervous system and the particularly great part that the cortex plays in that activity.

234744

KRYLOV, V. N.

ARTICLE

BY G. A. A., G. T. A. A., and G. T. A. A.

Physiological Fundamentals of the Vaccinal Process. *Voenno-meditsinskiy Zhurnal*, no 1, p 48, 1955



KRYLOV, V.H.

Possibilities of conditioned reflex regulation of immunologic reaction; on the writings of P.F.Zdrodovskii, A.A.Klimentova, G.V.

Shumakova, Zhur.mikrobiol.epid. i immun. 27 no.5:97-101 My '56.

(REFLEX, CONDITIONED

(MLRA 9:8)

eff. on antibody form.)

(ANTIGENS AND ANTIBODIES

antibody form., eff. of conditioned reflex)

USSR/General Problems of Pathology - Immunity.

U

Abs Jour : Ref Zhur Biol., No 5, 1959, 22660

Author : Krylov, V.N.

Inst : ~~Ref Zhur Biol.~~

Title : On Methodical Bases of Study of the Role of Higher  
Regions of CNS in the Production of Specific Antibodies.  
(To the Discussion on Nervous Mechanisms of Immunity).

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiol., 1958, No 5,  
136-140

Abstract : No abstract.

Card 1/1

KRYLOV, V.N.

Methodical principles for studying the role of higher segments of the central nervous system in specific antibody production; discussion on primary mechanisms of immunity. Zhur, mikrobiol. epid. i immun. 29 no.5:136-140 My '58 (MIRA 11:6)

1. Iz Voenno-meditsinskoy ordena Lenina akademii imeni Kirova.  
(ANTIBODIES,  
form., role of higher nerv. activity, review (Rus))  
(CENTRAL NERVOUS SYSTEM, physiology,  
higher nerv. activity, in antibody form., review  
(Rus))

KRYLOV, V.N.

Analysis of the physiological basis of so-called depression immunity.  
Report No.1: Effect of homo-and-heterological bacterial antigenic  
stimulation and of nonspecific stimuli on the manifestation of  
depression immunity. Zhur.mikrobiol.epid. i immun. 29 no.6:69-74  
Ja '58 (MIRA 11:7)

1. Iz Voenno-meditsinskoy ordena Lenina akademii imeni Kirova.  
(IMMUNIT,  
effect. of homo- & heterol.bact. antigenic  
stimulation & of non-specific stimuli on depression  
immun. (Rus))

KRYLOV, V.N.

Analysis of the physiological basis of so-called depressive immunity.  
Report No.2: Phenomena of depressive immunity in temporary functional  
exclusion of the central nervous system. Zhur. mikrobiol. epid. i immu.  
29 no.10:16-21 0 '58. (MIRA 11:12)

1. Iz Voenno-meditsinskoy ordena Lenina akademii imeni Kirova.

(IMMUNITY,

tachyphylaxis, eff. of temporary exclusion of CNS (Rus))

(CENTRAL NERVOUS SYSTEM, physiol.

eff. of temporary exclusion on tachyphylaxis. (Rus))

DOLIN, A.O.; KRYLOV, V.N.; LUK'YANENKO, V.I.; FLEROV, B.A.

Recent experimental data on conditioned reflex production and the inhibition of immune and allergic reactions. Zhur.vys.nerv.deiat. 10 no.6:832-841 N-D '60. (MIRA 14:1)

1. Kafedra fiziologii vysshey nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.  
(CONDITIONED RESPONSE) (ALLERGY) (IMMUNITY)

ALIKHANYAN, S.I.; KAMENEVA, S.V.; KRYLOV, V.N.

Experimentally increased frequency of the formation of diploid nuclei  
in the mycelium of heterokaryons of *Penicillium jancevskii*. *Mikro-*  
*biologiya* 29 no.6:820-825 N-D '60. (MIRA 14:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov,  
Moskva.

(PENICILLIUM)

(CHROMOSOMES)

KRYLOV, V.N., polkovnik meditsinskoy sluzhby, dotsent; OSIPIYAN, V.T.,  
polkovnik meditsinskoy sluzhby, kand.med.nauk; VESELOV, M.P.,  
podpolkovnik meditsinskoy sluzhby, kand.med.nauk;  
GOL'DIN, R.B., mayor meditsinskoy sluzhby, kand.med.nauk

Method for studying the seeding of surfaces of various  
objects with bacteria. Voen.-med. zhur. no.4:45-46 Ap '61.  
(MIRA 15:6)

(BACTERIOLOGY--TECHNIQUE)



KRYLOV, V.N.; MALINOVSKIY, O.V.

Relationship between the individual features of immunogenesis and typological features of the nervous system of rabbits. Report No.1: Dynamics of agglutinin formation depending on the functional mobility of the nervous processes. Zhur.mikrobiol.epid.i immun. 32 no.1: 10-13 Ja '61. (MIRA 14:6)

1. Iz Voenno-meditsinskoy ordena Lenina akademii imeni Kirova i Instituta fiziologii imeni Pavlova AN SSSR.  
(CONDITIONED RESPONSE) (IMMUNITY)  
(AGGLUTININS)

KRYLOV, V.N.; MALINOVSKIY, O.V.

Relationship between individual characteristics of immunogenesis and typological characteristics of the nervous system in rabbits. Report No. 2: Dynamics of the formation of agglutinins in relation to the functional force of neural processes. Zhur. mikrobiol., epid. i immun. 32 no.9:92-96 S '61. (MIRA 15'2)

1. Iz Voenno-meditsinskoy ordena Lenina akademii imeni Kirova i Instituta fiziologii imeni Pavlova AN SSSR.  
(AGGLUTININS) (CONDITIONED RESPONSE)  
(IMMUNITY)

RUBIKAS, I.; KRYLOV, V.N.; ALIKHANYAN, S.I.

Transformation of phage T4rII 250. Genetika no.5:14-18 N '65.  
(MIRA 19:1)

1. Institut atomnoy energii imeni I.V. Kurchatova, Moskva i  
Institut botaniki AN Litovskoy SSR, Vil'nyus. Submitted August  
23, 1965.

KRYLOV, V. H.

From the history of the application of sampling in pre-revolutionary Russia. Trudy Inst.mat.i mekh. AN Uz.SSR no.10 pr.1:62-80 '52. (MIRA 8:9)  
(Sampling (Statistics))

KRYLOV, V. N.

6260. Krylov, V. N. Vyborochnyy metod v ekonomicheskoy statistike. M., 1953. 35s, 20sm. (in-t ekonomiki akad. Nauk SSSR). 100 ekz. B. ts.-  
[54-58245]

SO: Knizhamya Letopis' 1, 1955

KRYLOV, VSEVOLOD NIKOLAYEVICH

Epp  
.R93216

Vyborochnyy Metod V Statistike (The Selective Method in  
Statistics) Moskva, Gos. Statisticheskoye Izd-vo, 1957.

116 p. Tables

MMC

KRYLOV, V.N.; KUZ'MINA, N.K.

Using explosives for unscrewing stuck pipes. Neftianik 2 no.12:26-  
27 D '57. (MIRA 11:2)

1. Sotrudniki Vsesoyuznogo nauchno-issledovatel'skogo instituta  
Geofiziki.

(Oil well drilling)

The influence of silica and iron oxide on the formation of calcium carbide. V. N. Kuznetsov. *Werkstoff 12*, No. 1, 15-21 (1947). These and coke were charged into a 20 kw. arc furnace. The max.  $\text{CaC}_2$  content in the product was obtained when the charge was added at the rate of 0.42 kg. per kw. hr. consumed. The addition of 2-3%  $\text{Fe}_2\text{O}_3$  to the charge increased the  $\text{CaC}_2$  content, provided the charging rate was decreased to 0.314 kg. per kw. hr.  $\text{SiO}_2$  in the charge decreased the  $\text{CaC}_2$  content in the product, especially if over 3% were present.  $\text{SiO}_2$  increased the speed of the reaction.

H. W. Rathmann.

An (1949-50) 1



Dehydration of boric acid to boric anhydride. M. S. Makimenko, V. N. Kozlov, and M. A. Lipanski (Leningrad Chem.-Technol. Inst.). *J. Appl. Chem. (U.S.S.R.)* 10, 181 (1956) (in Russian). Minimum loss of  $H_2O$  by vaporization occurred when the  $H_2BO_3$  was slowly heated in 3-5 hrs. to  $220^\circ$ , under normal atm. pressure, with a crust over the melt. The presence of the crust decreases  $H_2O$  losses to about 1%, whereas if the melt is stirred, or kept completely fluid, the losses amount to about 50%. Dehydration begins below  $100^\circ$ , but is not completed until  $200^\circ$  is attained. H. J. Kandner

PROPERTIES AND PROPERTIES INDEX

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Role of the ash components of the coke in graphitization. V. N. Kravtsov (Leningrad Tech. Inst.). *J. Applied Chem. (U.S.S.R.)* 20, 230-44(1947) (in Russian).--The carbides of Fe, Si, Al, and Ca, formed in the recryst. process of graphite, boiling at 3235°, 2400°, 1800°, and 1430°, resp., the 1st is most difficult to eliminate. Also, Fe forms high-temp. stable alloys with Al and Si and thus hinders their elimination. Debyograms of coke of an ash content 0.8%, with 5% addns. of SiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>, or Al<sub>2</sub>O<sub>3</sub>, graphitized at 2200°, showed the crystn. of graphite to decrease in that order. The key to the elimination of the harmful Al<sub>2</sub>O<sub>3</sub> is absence of Fe<sub>2</sub>O<sub>3</sub> in the coke. This is best achieved by preliminary chlorination of the coke which, at 400°, in 1 hr., under Cl<sub>2</sub> flowing at 1 l./hr., results in removal of 92% of the Fe<sub>2</sub>O<sub>3</sub>. In this process, only 2% of the Al<sub>2</sub>O<sub>3</sub> is removed at 800°, 86% at 1000°; at 1000°, only 0.7-1.0% of the SiO<sub>2</sub> would be removed. Presence of SiO<sub>2</sub> is beneficial for crystn. but requires graphitization at not under 2200°-2400° for complete decompn. of SiC. Presence of CaO is harmless as it does not form stable alloys with Fe and its carbide is disord. and evapn. above 2300°. N. Thom

ASH-564 METALLURGICAL LITERATURE CLASSIFICATION

100000 017 000 001

100000 017 000 001





KRYLOV, V. N.

"Investigations in the Technology of Electrodes and Electrodeposits."  
Dr Tech Sci, Chair of Electrothermics, Leningrad Order of Lenin Inst  
of Labor Red Banner Technological Inst imeni Leningrad Sovet, Min Higher  
Education USSR, Leningrad, 1955. (KL, No 12, Mar 55)

SO: Sum. No. 670, 29 Sep 55-Survey of Scientific and Technical Dis-  
sertations Defended at USSR Higher Educational Institutions (15)

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KRY/OU-V.N

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~~EX~~ The choice of thermally stable carboniferous materials in the manufacture of electrodes. V. N. Krylov. ~~Trudy Leningrad. Tekhnol. Inst. im. Leninskogo~~ (1955). The properties of anthracite and petroleum coke were discussed in relation to the thermal stability of electrodes manufd. from them. The thermal stability was expressed by  $K_H = (\% \text{ ash} - 30\% H)/100$ . For thermally stable materials,  $K_H$  was 1.100 and higher. Other requirements were low H content, high sp. gr., and absence of mineral impurities likely to cause formation of layers in the product. (C.A. 42, 1722). E.M. Blum.

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~~The optimum screening curve for the composition of a batch of electrodes and electrocarbons. V. N. Kravtsov, *Trudy Leningrad. Tekhnol. Inst. im. Lenina* 15, no. 1 (1955).~~  
 The optimum screening curve for manufg. high-quality electrodes and electrocarbons is expressed by  $y = 100(d/D)^n K\%$ , where  $d$  is the grain diam. in mm. passing through a given screen,  $D$  the largest size in mm. of the grains in the mixt., and  $K$  is a const. The value of  $D$  should not be more than 0.01-0.02 the diam. of the electrode made from anthracite and thermianthracite and not more than 0.0075 the diam. of the electrode made from petroleum coke. The value of  $K$  is 1 for graphitized electrodes, petroleum-coke products, and small-diam. anthracite electrodes;  $K = 1 - 0.2(1 - d/D)$  for medium-diam. anthracite electrodes and  $1 - 0.4(1 - d/D)$  for large diam. anthracite electrodes.  
 H. M. Elkin

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Category: USSR

B-9

Abs Jour: Zh--Kh, No 3, 1957, 7566

Author : Krylov, V. N.

Inst : Not given

Title : On the Mechanism of the Electrographitization Process in Coals, Electrodes, and Electric Coal Products

Orig Pub: Zh. Prikl. Khimii, 1956, Vol 29, No 2, 210-217

Abstract: A spectrographic and radiographic investigation has been made of thermal anthracite, petroleum coke, natural and synthetic graphite used in electrodes. The starting carbonaceous materials containing H, O, N, and S already possess the beginnings of the structure characteristic of graphite. The phase transformations which occur during graphitization proceed with the maintenance of orientational and structural correspondence. The appearance of a graphite structure is observed when the carbonaceous materials are heated to 1,600°; the graphitization of coals and of materials not

Card : 1/2

-25-

Category: ~~APPROVED~~ FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826830005-9

Abs Jour: Zh--Kh, No 3, 1957, 7566

easily amenable to graphitization requires the application of temperatures of 2,600-3,000° and high pressures. Electrographite produced in an electric arc differs from the natural product by a smaller crystal size and a greater impurities content. Graphitization is inhibited by the presence of impurities adsorbed by the carbonaceous materials. The author is of the opinion that the results obtained by him confirm the principle of nondiffusion phase transformations in solids (Kurdyumov, V. G., Dokl. AN SSSR, 1948, Vol 60, 1543).

Card : 2/2

-26-

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*May 30 1957*

USSR /Chemical Technology. Chemical Products  
and Their Application

I-6

Mineral salts. Oxides. Acids. Bases.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31245

Author : Krylov V. N., Polubelova A.S.

Title : Studies of Dehydration of Bauxite from Different  
Deposits

Orig Pub: Zh. prikl. khimii, 1956, 29, No 5, 698-704

Abstract: It is shown that the starting point of dehydration of bauxite, within the temperature range of 220-470°, depends on the nature of the bauxite and on its grain size. Temperature intervals have been determined which ensure removal of main portion of crystallization water, depending on particle size of bauxite and place of its

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USSR /Chemical Technology. Chemical Products  
and Their Application

I-6

Mineral salts. Oxides. Acids. Bases.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31245

occurrence. Comminution of bauxite promotes lowering of its dehydration temperature. Bauxites calcined below temperature of complete dehydration exhibit considerable hygroscopicity which depends on calcination temperature and conditions of humidification.

Card 2/2

SOV/137-58-9 1855b

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 54 (USSR)

AUTHORS: ~~Krylov, V.N.~~, Vil'k, Yu. N.

TITLE: Some Investigations of the Kinetics of Formation of 75% Ferrosilicon (Nekotoryye issledovaniya po kinetike obrazovaniya 75% nogo ferrosilitsiya)

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensovet, 1957, Nr 43, pp 64-67

ABSTRACT: The rate of formation of 75%-Fe-Si was determined in a Tamman laboratory furnace at temperatures of 1600, 1700, 1800, and 1900°C, as a function of the particle size of the quartz sand, the nature of the reductant, and the temperature. It has been established that the size of the sand particles has a significant effect only at temperatures up to 1700°. The process of reduction with charcoal develops its maximum intensity during the first stage, the greatest reduction rate being then achieved with the aid of petroleum coke. Maximum Si content is obtained at 1800° at an exposure time of 30 minutes. The beginning of SiO<sub>2</sub> evaporation was observed at 1600°. Bibliography: 6 references. V. B.

Card 1/1

1. Iron silicon alloys--Development 2. Furnaces--Performance  
3. Iron silicon alloys--Reduction 4. Temperature--Effectiveness

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85134

S/137/60/000/008/003/009  
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 8, p. 182,  
# 17947

AUTHORS: Krylov, V. N., Trots, A. A.

TITLE: Coating and Fluxes for High-Speed Electric Cutting of Steel

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensoveta, 1959, No. 53, pp. 102-105

TEXT: Investigations were made of high-speed cutting of steel using electrodes with different coatings, and fluxes assuring reduced melting temperature of the cut metal and higher liberation of heat in the cut. Grade "20Г" (20Г) 6-mm thick steel was cut by 180 - 200-amp current using electrodes with chalk and conventional coatings, fluxes and coatings with FeSi, FeMn and graphite in various proportions. The electrode consumption and the cutting time are calculated per one meter of cut steel. Highest cutting speed was attained when using 7-mm-diameter-electrodes and fluxes or coatings of FeSi + FeMn composition at a 1 : 1 ratio; cutting time was 5 minutes, specific electrode consumption 960 mm, electrode metal consumption 246.7 g. The cutting time was reduced by a factor of

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Coating and Fluxes for High-Speed Electric Cutting of Steel

3 as compared to chalk coatings; specific electrode consumption by about twice; electrode metal consumption by about 1.5 times. At an electrode diameter, reduced from 7 to 4 mm, cutting time for a chalk coating increased 2.5 times (39 min). For FeSi + FeMn flux at a 1 : 1 ratio the cutting time changed insignificantly. Lowest electrode consumption per metal weight is attained when using FeMn fluxes and coatings composed of FeSi + graphite at a 3 : 1 ratio: at a 4-mm electrode diameter the electrode metal consumption is then 173 and 130.6 g respectively; cutting time is 17 min 57 sec, and 10 min; at an electrode diameter of 7 mm the electrode metal consumption increases to 265.7 and 259 g respectively, cutting time is reduced to 8 min 22 sec and 8 min 37 sec.

V. B.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

KRYLOV, V.N.; TROTS, A.A.; KOZHEVNIKOV, A.V.; BITUK, S.M.

Production of calcium carbide, electrical carbon and graphitized  
articles from the coke of shale tar. Khim. i tekhn. gor.  
slan. i prod. ikh perer. no.8:139-151 '60. (MIRA 15:2)  
(Calcium carbide)  
(Oil shales)



S/148/60/000/010/007/018  
A161/A030

AUTHORS: Krylov, V.I.; Khrushchev, M.S.

TITLE: The Kinetics of 75-% Ferrosilicon Formation from Quartzites of Different Deposits

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1960, No. 10, pp. 84 - 95

TEXT: The purpose of this investigation was to determine the role of the quartzites microstructure in the process of the formation of 75-per cent ferrosilicon. Quartzites from three deposits were studied - from the Karaul'naya mount, Bakal'skoye, and Zolotaya Sopka, designated with KP, KB and KK (KP, KB and KK). The samples were studied by the Chelyabinskiy ferrosplavnyy zavod (Chelyabinsk Ferroalloy Plant); the composition and structure is different. An installation of Institut khimii silikatov AN SSSR (Institute of Silicates Chemistry of the Academy of Sciences USSR) with micro-scales was used for thermographic analysis. The ferrosilicon melting process was studied in 1700 - 1900°C in a tubular electric furnace with stepped temperature control; the quartzites had a grain size of between 0.075 and 0.60 - 0.80 mm; the duration of the experiments was 5 - 40 min; the

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S/148/60/000/010/007/018  
A161/A030

The Kinetics of 75-% Ferrosilicon Formation from Quartzites of Different Deposits 1/

samples were melted in 6 graphite crucibles placed into a graphite tray. The charge was composed by the equation  $\text{SiO}_2 + 2\text{C} = \text{Si} + 2\text{CO}$ . The curves (Fig. 3) obtained proved that the speed of ferrosilicon formation cannot be described by one general equation. Analytically, the curves 1,2 and 3 (Fig. 3) were described with sufficient accuracy for ferrosilicon formation at up to  $1700^\circ\text{C}$  by the formula  $[\text{Si}] = m \sqrt{t}$  (1) where  $[\text{Si}]$  is the Si content in melt (in %);  $m$  - the coefficient depending on the nature of the quartzites, the diameter of the particles, and the temperature;  $t$  - the isothermic holding time in furnace, in min. This equation has no maximum, and the process has practically to be endless to obtain 75% Si. The process does not end at  $1700^\circ$ , and it was not possible to obtain more than 20 - 25% Si. At  $1800^\circ$  and higher the process is different (Fig. 4) and can be expressed by the equation  $[\text{Si}] = at^2 + bt + \frac{c}{t} + d$  (2) where  $a, b, c$  and  $d$  are coefficients depending on the quartzites structure, particles' diameter, and temperature. This equation has a maximum showing that the process ends. The real Si content in the melt was 10-14% below that calculated, which may be explained by volatilizing of Si,  $\text{SiO}_2$  or  $\text{SiO}$ , as was revealed by Mikulinskiy and Maron (Ref. 8). It was concluded that the rate of ferrosilicon formation depends to a considerable degree on the particles' diameter and the structure of the quartzites, particular-

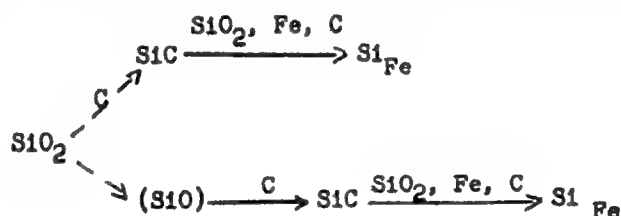
Card 2/5

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A161/A030

# The Kinetics of 75-% Ferrosilicon Formation from Quartzites of Different Deposits

ly at the beginning of the process before liquefying. The maximum Si content in the melt was obtained at 1800°C, and with PK quartzite particles' diameter of 0.12 mm; the maximum ferrosilicon formation rate from the same quartzite at the same temperature was observed at 0.25 mm particles' diameter. The 1850 - 1900°C range may be considered the optimum. The laboratory data were confirmed in the practical process at the Chelyabinsk Ferroalloy Plant with KK quartzites (the ferrosilicon formation process was faster than the KK grade in the Laboratory), but the KK grade proved unsuitable for melting in stationary electric furnaces with an open top. The best furnace design is expected to be with a rotating bath and tight-sealed top. It was concluded that in principle the formation reaction of 75-percent ferrosilicon is



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S/148/60/000/010/007/018  
A161/A030

The Kinetics of 75-% Ferrosilicon Formation from Quartzites of Different Deposits  
and the interaction of silicon carbide with  $\text{SiO}_2$  and iron limits the formation.  
There are 7 figures and 13 references; 11 Soviet, 1 French and 1 English.

ASSOCIATION: Leningradskiy tekhnologicheskii institut im. Lensovet (Leningrad  
Technological Institute imeni Lensovet)

SUBMITTED: January 16, 1960

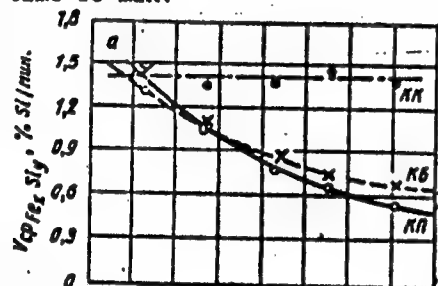
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A161/A030

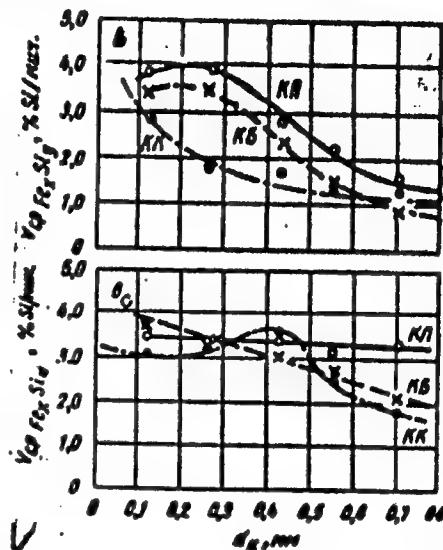
The Kinetics of 75-% Ferrosilicon Formation from Quartzites of Different Deposits

Figure 4:

Dependence of the ferrosilicon formation rate on the quartzite particles diameter ( $d_k$ ) at different temperatures: a - 1700°C; b - 1800°C; v) - 1900°C. Holding time 10 min.



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1000/1000/1000

AUTHORS: Dizonukly, V. V., Krylov, V. H.

TITLE: Concerning Graphite Formation

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 3,  
pp 722-729 (USSR)

ABSTRACT: This is a discussion on the forms in which pure carbon is obtained in pyrolytic reactions. The thermal decomposition of hydrocarbons of type  $C_nH_m$  or  $C_nH_{2n+2}$  does not yield pure carbon, but yields instead a high carbon content hydrocarbon  $C_nH_m$ , where  $n$  is as small as desired. Single graphite layers exist only at high temperatures; under normal conditions graphite may be represented by joined stacked layers consisting of hexagonal crystals which are the stable form of graphite under various conditions of its formation. A formula was established to determine the mean diameter of graphite crystals in carbon compounds, depending on the percent content of hydrogen and carbon:

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Concerning Graphite Formation

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$$d = \sqrt{\frac{3AS}{\pi}}$$

where  $K = 1 + 3n(n-1)$ ;  $n = C/H$  (in %);  $S$  is the surface of a single hexagonal "benzene ring" of the graphite layer and equals, according to X-ray analysis, 5.217 square A. For acetylene black, containing about 1% hydrogen,  $n = 8$ ; hence,  $K = 169$ , and  $d = 33.5$  A, which roughly approximates the result of direct X-ray measurements (21 A). There are 2 figures; and 4 Soviet references.

SUBMITTED: May 22, 1959

Card 2/2

KRYLOV, V.N.; KHRUSHCHEV, M.S.

Effect of the nature and dispersity of silicon-containing ores  
on the kinetics of the formation of 75% ferrosilicon. Zhur.  
prikl.khim. 33 no.4:815 Ap '60. (MIRA 13:9)  
(Iron-silicon alloys)



S/080/60/033/007/006/020  
A003/A001

AUTHORS: Digonskiy, V. V., Krylov, V. N.

TITLE: The Vectorial Character of the Properties of Industrial Graphitized Articles Caused by the Electromagnetic Field of a Graphitizing Furnace

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 7, pp. 1530-1538

TEXT: The effect of an electromagnetic field on the quality of electrodes during graphitization was proved. The magnetic susceptibility of natural graphite in the direction perpendicular to the hexagonal lattices is under normal conditions  $-21.5 \cdot 10^{-6}$ , but in the direction parallel to the hexagonal lattices it is  $-0.5 \cdot 10^{-6}$ , i. e., 43 times greater. The magnetic susceptibility of industrial articles of graphite was investigated in three mutually-perpendicular directions: lengthwise, vertically and across. Test samples 10x10x100 mm were cut from graphitized articles with an accuracy of  $\pm 0.5$  mm. The magnetochemical analysis of anisotropic substances in a non-homogeneous electromagnetic field was carried out here for the first time. It was shown that the highest value of magnetic susceptibility corresponds to the vertical

Card 1/3

3,4000

S/154/60/000/003/001/001  
B012/B051

AUTHOR: Kondrashkov, A. V. . Candidate of Technical Sciences, Docent

TITLE: On the Photoelectric Range Finder With a Mechanical Modulator

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy Geodeziya i aerofoto"yemka, 1960, No. 3, pp. 31 - 36

TEXT: The present paper is a critical review of the publications of H. Ellenberger (Refs. 1,2), as well as of his lectures given in 1957 during the International Courses for Geodetic Surveying in Munich. Ellenberger spoke about the mode of operation, block diagram, and construction of photoelectric range finders with a mechanical modulator of the light current and a visual observation of the reflected light. It is pointed out that a range finder with a mechanical modulator was also suggested by V. A. Velichko and K. A. Timerbulatova (Author's Certificate No. 108030 of December 1, 1956). Ellenberger tries to compute the possible accuracy of measurement with such a range finder. He supposes that the light signals produced by the modulators of the range finder

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On the Photoelectric Range Finder With a  
Mechanical Modulator

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B012/B051

form square pulses. In this connection it is pointed out that G. Münch (Ref. 3) has shown that a light current emerging from such a modulator changes with time, thus producing triangular and not square pulses (Fig. 2). It is shown that for the range finder described the distance between neighboring maxima and minima of triangular pulses is 30 to 35 m. Furthermore, it is pointed out that Ellenberger uses the terms of wavelength and oscillation frequency where these terms are related only to harmonic oscillations. The representation of the theory of the range finder used in the papers (Refs. 1,2) offered Ellenberger no opportunity to determine the probable accuracy of the instrument. It is pointed out here that the theory of the range finder can be presented also in a different way. One can use the commonly accepted terms of the frequency and wavelength of harmonic oscillations if one represents the law of change in the light current by a Fourier series. Thus, not only the necessary accuracy and correctness of the representation is achieved, but it is also possible to determine the probable accuracy of distance measurement by means of a range finder. Formula (6) is deduced which allows the probable accuracy of distance measurement to be estimated by means of a range finder with a mechanical modulator. It is shown that a

Card 2/3

IVANOV, A.B.; KRYLOV, V.M.

Process of sulfur removal from petroleum coke at high temperatures  
and its kinetics. Zhur. prikl. khim. 33 no.9:2001-2008 S '60.

(MIRA 13:10)

(Sulfur)

(Petroleum coke)

15.2250

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S/080/60/033/012/003/024  
D209/D305

AUTHORS: Digonskiy, V.V., and Krylov, V.N.

TITLE: The character of interplanar bonds in graphite and their dependence on temperature

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 12, 1960,  
2638 - 2643

TEXT: In their earlier work the authors described the graphite lattice as a polyvalent radical, whose existence was found possible at high temperatures. They also showed that, on cooling, an association of radicals occurred with the formation of chemical bonds resulting from the unsatisfied valencies of carbon atoms in the adjacent graphite layers. Since such a theory of graphite crystal formation has not been accepted, the authors found it necessary to continue the investigations to prove the existence of chemical bonding between carbon atoms of the adjacent layers. It is known that the conductivity of metals, having a characteristic metallic

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The character of interplannar ...

bonding between atoms, decreases as the temperature increases. In the case of graphite the conductivity along the layers increases with increasing temperature. This fact may be explained by the rupture of the interplannar chemical bonds, thereby liberating the valency electrons and increasing the number of current carriers (conductivity electrons). The common representations of space lattice of graphite give no indication of chemical bonding between carbon atoms of the adjacent layers. This, according to the authors should be rectified. In Figs. 1 and 2 the structures of graphites I and II are represented as they should be when chemical bonding is present. It is known that both artificial and natural graphites contain 80 % of structure I and 14 % of structure II, the remaining 6 % being some other structure. The main difference between graphites I and II is that in the crystals of graphite II, the lattices are repeated every two layers and the graphite I every other layer. In graphite I carbon atoms between adjacent layers are chemically bonded, the distance between them being 3.35 Å. The bonds alternate in such a manner that a carbon atom in any lattice is bon-

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The character of interplanar ...

ded through one bond with a carbon atom of the upper and the lower layers. The direction of the four valency bonds of each carbon atom are characterized by the angles between the bonds, being equal to  $120^\circ$ ,  $120^\circ$ ,  $120^\circ$ ,  $90^\circ$ ,  $90^\circ$ ,  $90^\circ$ . The structure of graphite II on the other hand resembles that of diamond if the latter is examined along one of the diagonals of its unit cell. The distribution of interplanar chemical bonds in graphite is assumed to alternate at an angle of  $113^\circ$ . Only under such conditions can the valency of carbon be equal to 4. The length of interplanar valency bond, at an angle of  $113^\circ$ , is  $3.63 \text{ \AA}$  and the valency angles in that layers are equal to  $120^\circ$ ,  $120^\circ$ ,  $120^\circ$ ,  $113^\circ$ ,  $83^\circ$ ,  $83^\circ$ . Although chemical bonds of  $3.35$  and  $3.63 \text{ \AA}$  are not found in any of the examined hydrocarbons the authors still maintain the bond is chemical, although very weak one. In the second part of their work the authors provide the results of high temperature X-ray analysis of an artificial graphite mark EG-0 characterized by the resistivity of  $p = 9.3 \cdot 10^{-4} \Omega$ . The results are tabulated. The data was obtained by using  $1 \times 15 \times 5 \text{ mm}$  graphite specimen which was subjected

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D209/D305

The character of interplanar ...

to x-rays at temperatures of 25 - 700°C. The changes of parameter "C" were determined by measuring the decrease of diameter of the 002 diffraction ring with increasing temperature. The results showed that in the above temperature range "C" increases by 3.0 %, while according to calculated values (using the coefficient of linear expansion of graphite) it should only increase by 0.5 %. It may be concluded, therefore, that the increase of the parameter "C" occurs as a result of compression of the graphite crystals. This compression also explains the fact that the mechanical strength of graphite increases with temperature, up to 2500°C. The above is confirmed in A.Kh. Breger and G.S. Zhdanov (Ref. 7: DAN SSSR, 28, 1940), who determined the electron density in graphite along a normal to the 001 plane. According to their results, 15 - 16 % of the total electron density is found between the layers which corresponded to one electron per each carbon atom in the graphite. The continuity of electron density distribution between the layers, as shown graphically by the above authors, shows an overlap of the electron clouds and, therefore, proves the existence of the chemi-

Card 4/6



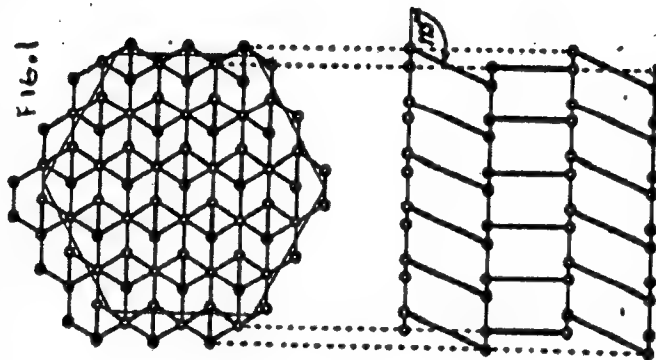
25650

S/080/60/033/012/003/024  
D209/D305

The character of interplanar ...

cal bonds between carbon atoms of the adjacent layers. There are  
5 figures, 1 table, and 7 Soviet-bloc references.

SUBMITTED: January 25, 1960



Card 5/6

DONSKOY, Aleksandr Vasil'yevich; KULYASHOV, Sergey Mikhaylovich;  
KRYLOV, V.N., doktor tekhn. nauk, retsenzent; SOKOLOV, A.N.,  
kand. tekhn. nauk, red.; ZHITNIKOVA, O.S., tekhn. red.

[Electrothermics] Elektrotermia. Moskva, Gos. energ. izd-  
vo, 1961. 311 p. (MIRA 15:2)  
(Electric furnaces) (Induction heating)

YERSHOV, V.A.; KRYLOV, V.N.

Transfer of phosphorus compounds from charges to calcium carbide.  
Zhur.prikl.khim. 35 no.7:1441-1448 J1 '62. (MIRA 15:8)  
(Phosphorus compounds) (Calcium carbide)

KRYLOV, V.N.; TROTS, A.A.; KOZHEVNIKOV, A.V.; BITUK, S.M.

Obtaining calcium carbide, carbon-electrode and graphitized articles  
from the chamber-furnace coke and tar pitch formed in the refining  
of Baltic shales. Khim. i tekhn. gor. slan. i prod. ikh perer.  
no.11:358-365 '62. (MIRA 17:3)

ALIKHANYAN, S.I.; GRIMBERG, K.N.; KRYLOV, V.N.; MAYSIIRYAN, A.N.; OGANESEYAN, M.G.

Temperature-sensitive mutations of T4B bacteriophage. Izv. AN SSSR.  
Ser. biol. no.4:542-549 J1-Ag '65. (MIRA 18:7)

1. Institut atomnoy energii im. I.V.Kurchatova.

ACC NR: AP6012841

SOURCE CODE: UR/0080/66/039/004/0749/0754

AUTHOR: Bitin'sh, A. S.; Krylov, V. N.

ORG: Leningrad Technological Institute Im. Lensovet (Leningradskiy tekhnologicheskiy institut)

TITLE: Preparation of ferrites of the  $\text{NiO-ZnO-Fe}_2\text{O}_3$  system by fusion

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 4, 1966, 749-754

TOPIC TAGS: ferrite, nickel compound, zinc oxide, iron oxide, magnetization

ABSTRACT: A systematic study of fused ferrites in the  $\text{NiO-ZnO-Fe}_2\text{O}_3$  system was carried out by using chemical, x-ray diffraction, microstructural, thermal, and magnetic analyses. The fusion method used for preparing the ferrites consisted in burning a mixture of iron and nickel metal powders with the zinc oxide powder in a stream of oxygen. Because of the high temperature arising in the melt, the fusion products contain magnetite. The  $\text{FeO}$  content varies from 14.65 to 31 wt. % depending upon the initial composition. It was found that sintering in oxygen of fusion products which have been ground and pressed with a plasticizer can produce dense articles with a minimum magnetite content (up to 1 wt. %  $\text{FeO}$ ), the maximum temperature of sintering in oxygen being 1300C. Products made of ferrites of the  $\text{NiO-ZnO-Fe}_2\text{O}_3$  system were shown to have a higher Curie point than products made of

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UDC: 542.943+549.731.1

L 33485-66

ACC NR: AP6012841

nickel-zinc ferrites obtained by decomposing a mixture of sulfates. The specific magnetization of fused ferrites, measured at room temperature, reaches values of about the same order as those of products obtained by thermal decomposition of sulfates. On the basis of the proposed mechanism of formation of fused ferrites of the  $\text{NiO-ZnO-Fe}_2\text{O}_3$  system, zinc oxide was shown to have a decisive influence on the magnetic content of the fused products. Orig. art. has: 4 figures and 1 table.

SUB CODE: 11, 07 / SUBM DATE: 10Jun65 / ORIG REF: 004 / OTH REF: 005

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L 24527-66 EWT(m)/EWA(d)/I/EWP(t) IJP(c) JD/HW/WB

ACC NR: AP6011018

SOURCE CODE: UR/0080/66/039/003/0696/0698

AUTHOR: Bitin'shi, A. S.; Krylov, V. M.

ORG: Leningrad Technological Institute imeni Lensovet (Leningradskiy tekhnologicheskii institut)

TITLE: Preparation of nickel ferrite by fusion in an ultrasonic field

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 3, 1966, 696-698

TOPIC TAGS: ferrite, nickel compound, iron oxide, ultrasonic field, cavitation.

ABSTRACT: The purpose of the study was to determine the effect of an ultrasonic field on the preparation of fused ferrites of the  $\text{NiO-Fe}_2\text{O}_3$  system at various ratios of the initial components (carbonyl iron and nickel powder). Mixtures of the latter were burned in a stream of oxygen; ultrasound with a frequency of 23 Kc and an intensity of  $2.0 \text{ W/cm}^2$  was applied while the mixtures were being melted. The products obtained were checked by chemical, x-ray, and microstructural analysis. Ultrasound was found to decrease the magnetite content considerably and to promote the formation of nickel ferrite. X-ray phase analysis showed the products to be solid

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UDC: 542.943 + 549.731.1 + 66.084



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ACC NR: AP6011018

solutions of nickel ferrite and magnetite with segregations of NiO in phase form. In the melt, the ultrasound gives rise to cavitation phenomena consisting of the formation of spaces filled to a greater or lesser extent with gas, and in the collapse of these spaces as a result of strong shock waves. The oxidation of ferrous oxide in the melt acted upon by ultrasound in a stream of oxygen is explained by the oxidizing effect of the ultrasonic field, an effect related to the cavitation phenomenon. Orig. art. has: 1 figure.

SUB CODE: //07/ SUBM DATE: 12Jul65/ ORIG REF: 004/ OTH REF: 001

Card 2/2 *UUP*

ALIKHANYAN, S.I.; MINDLIN, S.Z.; SUKHODOLETS, V.V.; KRYLOV, V.N.

Some current problems in the genetics of micro-organisms.  
Antibiotiki 7 no.9:841-852 S '62. (MIRA 15:12)

1. Institut atomnoy energii imeni Kurchatova AN SSSR.  
(GENETICS) (MICROBIOLOGY)

KRYLOV, V.N.

Molecular mechanisms of chemical mutagenesis. Zhur.VKHO 8 no.1:  
46-55 '63. (MIRA 16:4)  
(Variation (Biology)) (Biochemistry)

ALIKHANJAN, Sz.I. [Alikhanian, S.I.]; MINDLIN, Sz.Z. [Mindlin, S.Z.];  
SZUCHODELEC, V.V. [Sukhodelets, V.V.]; KRYLOV, V.N. [Krylov, V.N.];  
SZABO, Gabor, dr. [translator]; IVANOVICS, Gyorgy, prof.dr.  
[translator]

Some newer problems relating to the genetics of microorganisms.  
Biol kosal 10 no.2:87-96 '62.

1. Szovjet Orvostudományi Akadémia Kurcsatovrol elnevezett  
Atomenergiái Intézete (for Alikhanian, Mindlin, Sukhodelets,  
Krylov).

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TEROKHINA, L.I.; IL'INA, T.S.; KAMENEVA, S.L.; ERYLOV, I.N.;  
LOMOV-KAYA, N.D.; KHEMLIN, S.Z.; BUKHODOLOV, V.N.; SOKOLOVA,  
Ye.V.; LUKHODOLETS, I.V.; ZAKHAROV, I.A.; INGO-VECHTOMOV,  
S.G.; KVITKO, K.V.; KRIVITSKIY, A.S.; KARAEVICH, Yu.N.;  
ENGEL'GARDT, V.A., akademik, glav. red.; ALIMENYAN, L.I.,  
prof., red.; IL'INA, T.S., red.

[Genetics and variation of micro-organisms] Genetika i se-  
lektsiya mikro-organizmov. Moskva, Nauka, 1964. 304 p.  
(MIRA 17:9)

1. Institut atomnoy energii imeni I.V.Kurchatova (for  
Terokhina, Il'ina, Kameneva, Erylov, Lomovskaya, Khemlin,  
Bukhodorov, Sokolova, Lukhodorov). 2. Kafedra genetiki Le-  
ningradskogo gosudarstvennogo universiteta (for Zakharov,  
Ingo-Vechtomov, Kvitko). 3. Institut radiatsionnoy i fiziko-  
khimicheskoy biologii (for Krivitskiy). 4. Institut mikro-  
biologii AN SSSR (for Karasvich).

KRYLOV, V.P.

Make better use of by products. Bum.prom. 37 no.6:23-24, Je '62.  
(MIRA 15:6)

1. Staryiy master tsokha regeneratsii Solombal'skogo kombinata.  
(Woodpulp industry---By-products)

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BRUSENTSOVA, V.N., inzh.; KRYLOV, V.P., inzh.; SAVEL'YANVA, Ye.G., inzh.

Increasing the wear resistance of aluminum alloys by chromium  
plating. [Trudy] NATI no.18:3-21 '59. (MIRA 12:7)  
(Aluminum alloys) (Chromium plating)



**USSR/Electricity - Transformers Voltage Regulation "Gostasvet" Plant**

**"Autotransformers With Continuous Voltage Regulations," A. B. Podol 'ner, S. V. Krestnikov, Engineers, G. K. Aladshalov, V. P. Krylev, S. G. Pol 'dman, "Gostasvet" Plant, Moscow**

**"Elektricheskoe" No 6, pp 26-30**

**Describes series of autotransformers which provide continuous voltage regulation under load, and gives principles underlying their design. These transformers were designed and put into series production by the "Gostasvet" plant. Submitted 9 Dec 50.**

**PA 196T25**

KRYLOV, V.P., inzh.

Use of nonmetallic brake shoes for the rolling stock of railroads.  
Trudy VNITI no.16:78-95 '62. (MIRA 17:1)

KOCHERVA, K.S. inzh. KRY, V. V. inzh.

Locomotive wheel flange lubricators. Trade VNIT no. 19:152-  
158 '64. (MER: 1813)

AUTHORS: Drozdov, N. S., Krylov, V. P. SOV/156-58-2-35/48

TITLE: The Formation Conditions of Violuric Acid and of the Violurates When Nitrite Acts Upon Barbituric Acid (Usloviya obrazovaniya violurovoy kisloty i violurats pri deystvii nitrita na barbiturovuyu kislotu )

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp. 342 - 345 (USSR)

ABSTRACT: The formation of the salts of the (5-isonitroso-barbituric acid) acid mentioned in the title has been known since almost 100 years, the reaction conditions of this process remain, however, unknown. The initial experiments of the authors proved that in contrast to concentrated solutions those with only 0,01 M nitrite do not show immediately the characteristic violurate color, but only after they are kept at 100° for 10 - 20 minutes. The color is produced with different velocity in individual experiments and is of different stability. Therefore the investigation of the said reaction in diluted solutions is the purpose of the present paper. The experiments were carried out at barbituric

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